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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---|-------------|----------------------|---------------------|------------------|
| 10/787,462 | 02/27/2004 | Masahiko Akiyama | 249338US2RD | 7831 |
| 22850 | 7590 | 06/10/2005 | EXAMINER | |
| OBLON, SPIVAK, MCCLELLAND, MAIER & NEUSTADT, P.C. | | | CHIEN, LUCY P | |
| 1940 DUKE STREET | | | ART UNIT | |
| ALEXANDRIA, VA 22314 | | | PAPER NUMBER | |
| | | | 2871 | |

DATE MAILED: 06/10/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

E/K

| | | | |
|------------------------------|------------------------|---------------------|--|
| Office Action Summary | Application No. | Applicant(s) | |
| | 10/787,462 | AKIYAMA ET AL. | |
| | Examiner | Art Unit | |
| | Lucy P. Chien | 2871 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-6, 10-14, 16, 18, 19 is/are rejected.
- 7) ☒ Claim(s) 7-9, 15 and 17 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 2/27/2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 2/27/2004 5/27/04
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____

DETAILED ACTION

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 1-3,6,8,10,14,16 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The relationship between the first direction and the second direction and the relationship between the second direction and first direction is unclear.

Claim Rejections - 35 USC § 102

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claim 1-5, 10,12,13 are rejected under 35 U.S.C. 102(b) as being anticipated by Higa et al (US 6295102).

Regarding Claim 1,10: Higa et al shows in Figure 3 (Column 4, rows 54-67 and Column 5, rows 1-4) a display device with a first thin plate having flexibility on the (plastic substrate is flexible) (11a) second thin plate having flexibility (11b). And a fixing portion (24 spacer) with fixes the first thin plate (11a) and the second thin plate (11b) together on the first direction within each main surface of the first and second thin plates. Also a close contact member (23 seal) which is provided in a second direction perpendicular to the first direction within the main surface and which brings the first thin plate (11a) and the second thin plate (11b) into close contact.

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Regarding Claim 10: The second close contact member (Figure 3, there are two 23 seals shown) which has flexibility and provided linearly in the second direction within a surface of the second thin plate (11b) which faces the first thin plate (11a). The thin plates are slidably engaged with each other.

Regarding Claim 2: Higa et al shows in Figure 3 where the close contact member is a guide member (24 spacer) which prevents the first thin plate (11a) and the second thin plate (11b) from displacing in the first direction.

Regarding Claim 3: Higa et al shows in Figure 3 where the close contact member (24 spacer) allows the first thin plate and the second thin plate to be displaced in the second direction.

Regarding Claim 4,12: Higa et al shows in Figure 3 where the first thin plate (11a) and the second thin plate (11b) is one selected group consisting of a liquid crystal cell (25).

Regarding Claim 5,13: Higa et al shows in Figure 3 The first thin plate (11a) and second thin plate (11b) is one selected from the group consisting of a polarizing plate (12a, 12b).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Higa et al (US 6295102) in view of Yamanami (US 20010035921 A1).

Higa et al does not disclose contact members including recessor projecting portions being L shaped.

Yamanami shows in figure 2 a close contact member (4 spacer) including a recess portion and the second close contact member (5 spacer) including a projecting portion fitting in the recess portion.

I would have been obvious to one of ordinary skill in the art, at the time of the invention to combine the teaching of Higa et al's flexible liquid crystal display and Yamanami to provide a reliable contact connection between the two substrates.

Claim 18 is rejected under 35 U.S.C. 103(a) as being unpatentable over Higa et al (US 6295102).

Higa et al does not disclose the projecting portion being L-Shaped.

It is known that to have the two contact members connect and be able to shift from the right to the left to use the geometric L-shaped pattern to complete the coupling of the two contact members.

I would have been obvious to one of ordinary skill in the art, at the time of the invention to combine the teaching of Higa et al's flexible liquid crystal display to include the known geometric L-shaped pattern to secure and allow flexibility between the two contact members.

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Claim 19 is rejected under 35 U.S.C. 103(a) as being unpatentable over Higa et al (US 6295102) in view of Honda (US 4950072).

Higa et al does not disclose the use of exhausting air between the thin plates.

Honda discloses (column 2, row 39-43) the use of exhausting air from the panel unit to cool the liquid crystal panel.

It would have been obvious to one of ordinary skill in the art, at the time of the invention to combine the teaching of Higa et al flexible liquid crystal display and Higa's exhausting air-cooling method to cool down the liquid crystal display.

Allowable Subject Matter

Claim 6-9,14-17 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following statements indicate reason for allowability: Nakayama (US 6201586) discloses in Figure 6(a) a display device incased with a light source (1) that is wound by a lamp reflector (3). Nakayama does not disclose the display device comprising an accommodating container that winds and accommodates the display part and the close contact member with one side as a winding axis. Further, Nakayama does not disclose a clamp capable of holding and fixing the two thin plates.

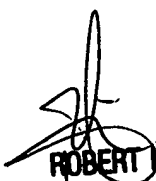
Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lucy P. Chien whose telephone number is 571-272-8579. The examiner can normally be reached on M-F 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert Kim can be reached on (571)272-2293. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Lucy Chien
Examiner
Art Unit 2871
LC


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